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Application No.: 10/041,569

IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A ~~C~~combined gear change and brake control unit for a bicycle comprising~~,~~:

a support body which can be fastened to a ~~the handlebar of the~~ bicycle,

a brake control lever pivotally mounted on the support body around a first axis,

a gear change control unit carried by the support body, comprising a shaft turning around a second axis~~, either orthogonal or substantially orthogonal~~ positioned substantially orthogonally to said first axis, in which the shaft carries a pulley on which an end portion is configured to receive a control cable of a derailleur which is to be wound, and in which said shaft is subject to a return torque tending to turn the shaft towards a direction in which the cable is released,

a gear change lever arranged behind the brake control lever for controlling the rotation of said shaft in a direction of increased winding of the cable, and

a button lever arranged on a side of said support body for controlling the rotation of said shaft in the release direction of the cable,

wherein the gear change control unit comprises a ~~ratchet mechanism~~ rocker arm controlled by said button lever and subject to assuming a home position and an active position, the ~~ratchet mechanism~~ rocker arm is arranged ~~so~~ to leave the shaft

free to turn by a predetermined amount in the release direction of the cable, under the action of said return torque following each variation of position of the ~~ratchet mechanism~~ rocker arm between the home position and the active position, and vice versa, and

said button lever and said rocker arm are two separate components, oscillating independently with respect to the support body, elastic means being provided to urge said button lever towards an end of stroke stop.

2. (Currently Amended) The unit of claim 1 wherein said ~~ratchet mechanism~~ rocker arm comprises a gear fastened to the support body with a first and a second meshing unit co-operating with said gear.

3. (Cancelled)

4. (Previously Presented) The unit of claim 2 wherein the first and second meshing unit are arranged to retain the gear in said release direction of the cable.

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Currently Amended) A combined gear change and brake control unit for a bicycle comprising:

a support body which can be fastened to ~~a~~ the bicycle;

a brake control lever pivotally mounted on the support body around a first axis;

a gear change control unit carried by the support body, comprising a shaft turning around a second axis, positioned orthogonally to said first axis, in which the shaft carries a pulley on which an end portion of a control cable of a derailleur is destined to be wound, and in which said shaft is subject to a return torque tending to turn the shaft towards a direction in which the cable is released;

a gear change lever arranged behind the brake control lever for controlling the rotation of said shaft in a direction of most winding of the cable; and

a button lever arranged on a side of said support body for controlling the rotation of said shaft in the release direction of the cable;

wherein the gear change control unit comprises a ~~ratchet mechanism~~ rocker arm controlled by said button lever and subject to assuming a home position and an active position, the ~~ratchet mechanism~~ rocker arm is arranged to leave the shaft free to turn by a predetermined amplitude in the release direction of the cable, under the action of said return torque following each variation of position of the ~~ratchet mechanism~~ rocker arm between the home position and the active position, and vice versa, and

an elastic means urges the ~~ratchet mechanism~~ rocker arm toward the home position.

10. (Currently Amended) The unit of claim 9 wherein said ~~ratchet mechanism~~ rocker arm ~~comprises~~ engages a gear fastened to the support body with a first and a second meshing unit co-operating with said gear.

11. (Previously Presented) The unit of claim 10 wherein the first and second meshing unit are arranged to retain the gear in said release direction of the cable.

12. (Currently Amended) A combined gear change and brake control unit for a bicycle comprising:

a support body which can be fastened to ~~a~~ the bicycle;

a brake control lever pivotally mounted on the support body around a first axis;

a gear change control unit carried by the support body, comprising a shaft turning around a second axis positioned orthogonally to said first axis, in which the shaft carries a pulley on which an end portion of a control cable of a derailleur is destined to be wound, and in which said shaft is subject to a return torque tending to turn the shaft towards a direction in which the cable is released;

a gear change lever arranged behind the brake control lever for controlling the rotation of said shaft in a direction of most winding of the cable; and

a button lever arranged on a side of said support body for controlling the rotation of said shaft in the release direction of the cable;

wherein the gear change control unit comprises a ratchet mechanism controlled by said button lever and subject to assuming a home position and an active position, the ratchet mechanism is arranged to leave the shaft free to turn by a predetermined amplitude in the release direction of the cable, under the action of said return torque following each variation of position of the ratchet mechanism between the home position and the active position, and vice versa, said ratchet

mechanism comprising a gear ~~solidly~~ fastened to ~~to~~ the shaft and rocker arm pivoting on the support; and

said gear is equipped with radial teeth and in that said ratchet mechanism is pivotally mounted around an axis, either parallel or substantially parallel to the rotation axis of said shaft.

13. (Currently Amended) The unit of claim ~~11~~ 12 wherein ~~said ratchet mechanism comprises a gear fastened to the support body with~~ a first and a second meshing unit ~~co-operating~~ co-operate with said gear.

14. (Previously Presented) The unit of claim 13 wherein the first and second meshing unit are arranged to retain the gear in said release direction of the cable.

15. (Currently Amended) A combined bicycle gear change and brake control unit comprising:

a support body which can be fastened to ~~a~~ the bicycle;

a brake control lever pivotally mounted on the support body around a first axis;

a gear change control unit carried by the support body, comprising a shaft

turning around a second axis that is positioned orthogonally to said first axis, the shaft attached to a pulley about which an end portion of a derailleur control cable is destined to be wound, and the shaft is subject to a return torque that turns the shaft towards a first direction;

a gear change lever for controlling the rotation of the shaft in the first direction;

a button lever arranged on a side of the support body for controlling the rotation of the shaft in a second direction;

a ~~ratchet mechanism~~ rocker arm, controlled by said button lever, having a home position and an active position, the ~~ratchet mechanism~~ rocker arm is arranged to leave the shaft free to turn by a predetermined amplitude in the second direction, under the action of said return torque following each variation of position of the ~~ratchet mechanism~~ rocker arm between the home position and the active position, and vice versa; and

a means that pushes the ~~ratchet mechanism~~ rocker arm toward the home position.

16. (Previously Presented) The unit of claim 15 wherein the first direction is a direction that winds the cable onto the pulley and the second direction unwinds the cable from the pulley.

17. (Previously Presented) The unit of claim 15 wherein the first direction is a clockwise direction and the second direction is a counterclockwise direction.

18. (Previously Presented) The unit of claim 15 wherein the first direction is a counterclockwise direction and the second direction is a clockwise direction.

19. (Cancelled)

20. (Currently Amended) ~~The unit of claim 19~~ A combined gear change and brake control unit for a bicycle comprising:

a support body which can be fastened to the bicycle;

a brake control lever pivotally mounted on the support body around a first axis;

a gear change control unit carried by the support body, comprising a shaft turning around a second axis positioned substantially orthogonally to the first axis, in which the shaft carries a pulley on which an end portion is configured to receive a control cable of a derailleur which is to be wound, and in which the shaft is subject

to a return torque tending to turn the shaft towards a direction in which the cable is released;

a gear change lever arranged behind the brake control lever for controlling the rotation of the shaft in a direction of increased winding of the cable; and

a button lever arranged on a side of the support body for controlling the rotation of the shaft in the release direction of the cable;

wherein the gear change control unit comprises a ratchet mechanism controlled by the button lever and subject to assuming a home position and an active position, the ratchet mechanism is arranged to leave the shaft free to turn by a predetermined amount in the release direction of the cable, under the action of the return torque following each variation of position of the ratchet mechanism between the home position and the active position, and vice versa;

wherein said ratchet mechanism comprises a gear fastened to the shaft and a rocker arm pivoting on the support body co-operating with the teeth of said gear.

21. (Previously Presented) The unit of claim 20 wherein the rocker arm comprises first and second meshing unit engaging the teeth of the gear.

22. (Previously Presented) The unit of claim 20 wherein the button lever and the rocker arm are two separate components, oscillating independently

with respect to the support body, elastic means being provided to push the button lever towards an end of stroke stop.

23. (Previously Presented) The unit of claim 21 wherein the first and the second meshing unit are arranged so to retain the gear in the release direction of the cable.

24. (Previously Presented) The unit of claim 20 wherein the ratchet mechanism comprises elastic means arranged to push the rocker arm towards the home position.

25. (Previously Presented) The unit of claim 20 wherein the gear is equipped with radial teeth and in that the rocker arm is pivotally mounted around an axis, either orthogonal or substantially parallel to the rotation axis of the shaft.

26. (New) A bicycle gear change and brake control unit comprising:

a) a support body which is adapted to be fastened to a bicycle,

b) a brake control lever pivotally mounted on the support body around a first axis;

c) a gear change control unit positioned within the support body, the gear change control unit comprising:

i) a shaft that turns around a second axis that is

substantially orthogonal to said first axis,

ii) a pulley mounted on the shaft and having an end portion configured to receive a gear control cable which has wind up and release directions and said shaft is subject to a return torque tending to turn the shaft towards the direction in which the cable is released, and

iii) a rocker arm having controlled movement between a home position and an active position so that said shaft is free to turn by a predetermined amount in the release direction of the cable, under the action of said return torque following movement of the rocker arm between the home and the active positions;

d) a gear change lever, that oscillates with respect to the support body, arranged behind the brake control lever for controlling the rotation of said shaft in a direction of increased winding of the cable;

e) a button lever, that is separate from the gear change lever and oscillates independently from the gear change lever with respect to the support body, arranged on a side of said support body for controlling the rotation of said shaft in the release direction of the cable; and,

f) means for urging said button lever towards an end stop.